

Paper Paperboard & Wood Pulp

1/10/85
A2500-2

MONTHLY STATISTICAL SUMMARY - Vol. 63 - No. 12

DECEMBER 1985

PAPER AND PAPERBOARD PRODUCTION: YEAR-END STRENGTH

The seasonally adjusted rate of paper and paperboard production turned upward in October and November, pointing to a 1985 production total of 66.8 million tons, about halfway between the outputs for 1983 and 1984. The seasonally adjusted rate of production in the fourth quarter of 1985 is estimated at 67.3 million tons per year, 2.7% above the second quarter low but 0.7% below the first quarter's 67.8 million tons per year.

PAPER: The trend of total paper production during 1985 was relatively flat, with the average rate in each quarter within 1.6% of the year's average. Total paper production in 1985 is estimated at 33.9 million tons, 1.5% below its 1984 record high but 3.2% above 1983.

Increases in paper production for the fourth quarter of 1985 were largely concentrated in the printing and writing grades. The strength in demand was strikingly evident in the trend of new orders. As the table on page 3 shows, new orders for each of the three major printing-writing paper grades --uncoated groundwood, coated, and uncoated free sheet papers-- jumped sharply upward in October and held near that higher level in November. Unfilled orders for uncoated free sheet papers were 15.6% above their year-ago level as of the end of November 1985. Unfilled orders for uncoated groundwood papers were off 4.9% but coated paper unfilled orders were down 24% from their year-ago level.

This pattern of new and unfilled orders at domestic paper mills is consistent with recent import trends: uncoated groundwood paper imports, as reported by Census, which had shown a 49% increase from 1983 to 1984, were down 2.9% in the first ten months of 1985; uncoated free sheet paper imports, which had doubled from 1983 to 1984, fell by 27% in 1985. Coated paper imports continued to climb, showing a 164% increase from 1983 to 1984 and a further 23% increase in the first ten months of 1985. Even with the year-to-year declines in some grades, total imports of printing-writing papers in 1985 were equivalent to nearly 10% of the total new supply. Total shipments of printing and writing papers in 1985 were close to their 1984 levels, with increases in the uncoated free sheet papers offset by some declines in the other major grades.

The strength of demand for printing-writing papers in the United States in 1985 is best reflected in the new supply (shipments plus imports as reported by the Printing-Writing

Continued on Page 2

Paper Division less exports) figures. The 1985 totals, estimated on the basis of 11 months production data and ten months import and export data, show estimated new supply of printing-writing papers at 20.6 million tons, nearly 1% above its 1984 high. New supply of uncoated groundwood paper, at an estimated 2.9 million tons, is up 3.6%; uncoated free sheet papers, at 10.0 million tons, are up 4.2%; but coated papers, at 6.3 million tons, show a decline of 4.4%.

The other grades of paper --newsprint, packaging and industrial papers, and tissue papers-- fluctuated around a flat trend. However, where the 1985 totals show production of tissue papers close to its 1984 level, the 1985 newsprint total is down by nearly 3% and the 1985 totals for the packaging and industrial paper grades are an estimated 6.6% below their 1984 rates with no strength evident in the last quarter of the year.

PAPERBOARD: The paperboard story for 1985 is told largely by three trends: domestic use, inventories and exports. The change in tonnages during 1985 were not large, but each had a negative impact on domestic production.

Activity in paperboard's end-use markets increased from 1984 to 1985, but the rate of gain was much less than in 1984. The paperboard demand indicators shown in the Industry Fact sheet attached to this report rose by an estimated 1.6% in 1985, compared to a 9.6% increase in 1984. This slow-down in growth apparently led consumers to adjust their inventories to this reduced growth trend.

The adjustment also occurred at containerboard producing and consuming mills and plants. Inventories of containerboard at these mills and plants, which had increased by 445,000 tons during 1984, rose another 138,000 tons in the first three months of 1985, bringing inventory total to 8.1 weeks of supply. It required major shutdowns during the second quarter to bring these inventories down. Inventories were further reduced during the subsequent months; as of December 1, 1985 inventories were 170,000 tons below their year-ago level and 543,000 tons below their April 1, 1985 peak, and equivalent to about 6 weeks of seasonally adjusted supply. With 11 months data available, shipments of fibre boxes for all of 1985 are estimated at 264 billion sq. ft., 1.5% below their 1985 high.

Containerboard production was also affected by the trend of exports. Exports of kraft linerboard in 1985, estimated at 1.73 million tons, were down 17% (about 350,000 tons) from their 1984 total. The net impact of these negative trends brought total production of containerboard for domestic use to an estimated 20.2 million tons, 3% below its 1984 total.

The other major paperboard export grade, namely solid bleached paperboard, showed production for export in 1985 off an estimated 21,000 tons (roughly 4%) from its 1984 level and 11% (58,000 tons) from its 1983 total. Total solid bleached paperboard production in 1985 is estimated at 3.95 million tons,

PAPER AND PAPERBOARD STATISTICS

PRODUCTION, SHIPMENTS AND ORDERS
(Thousands of Short Tons)

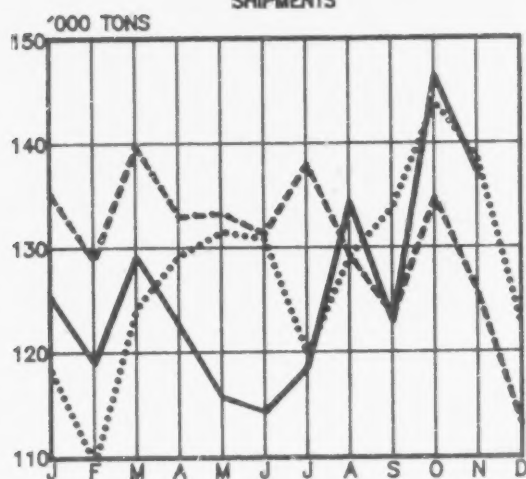
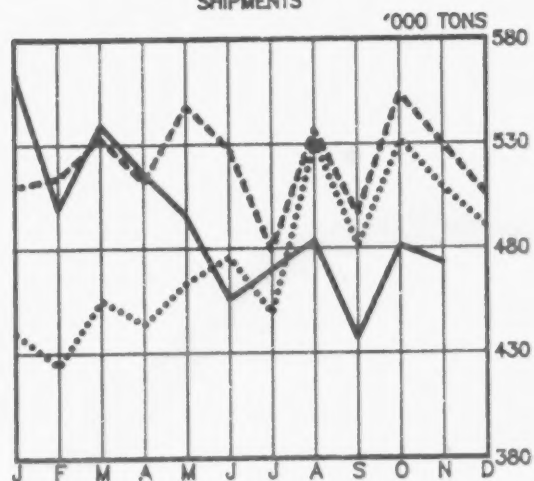
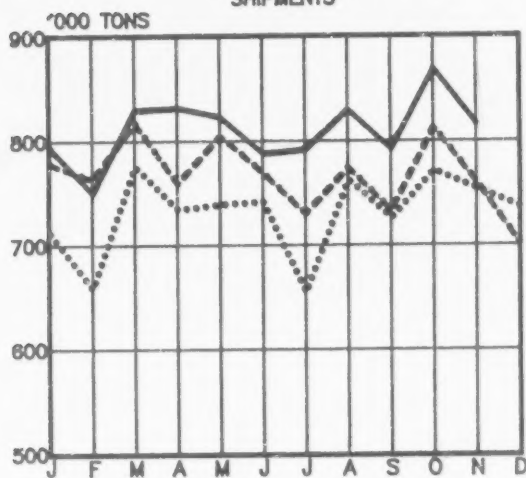
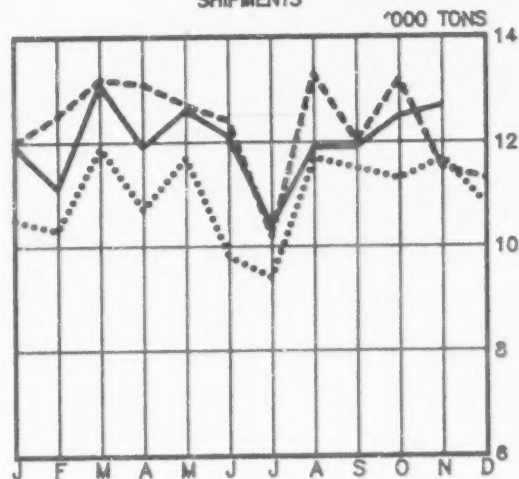
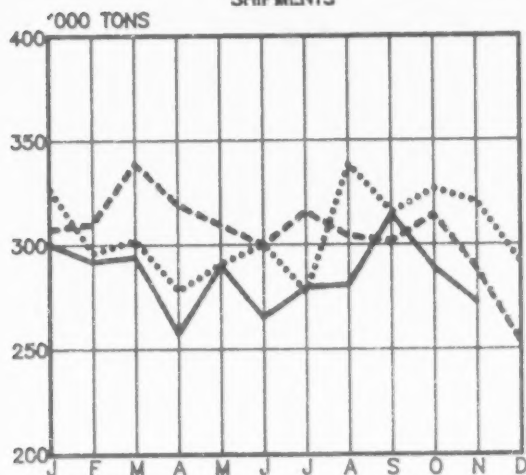
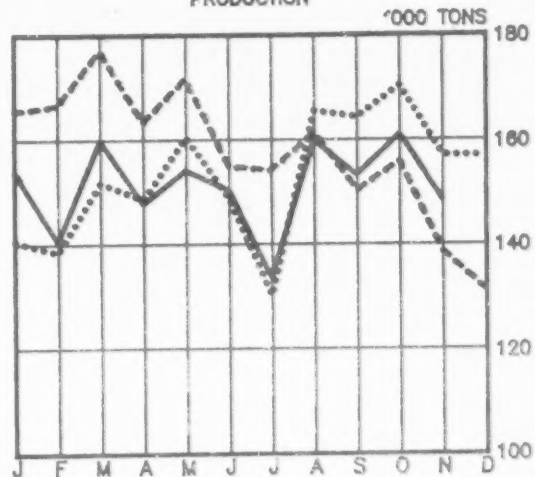
	YEAR		AUG.	SEPT.	OCT.	NOV.	Annual	% Change
	1983	1984	1985	1985	1985	1985	Rate	From same
							Y-T-D	Period
							1985	Last Year
PAPER								
Newsprint - Production	5167	5539	456	447	449	438	5443	-2.4
- Shipments	5153	5584	454	446	463	437	5426	-3.5
Printing & Writing sum	17370	18403	1559	1462	1613	1541	18494	-0.1
Groundwood Paper - Shipments	1531	1565	134	123	147	137	1511	-4.6
- New Orders	1581	1575	124	129	168	137	1533	-3.9
- Unfilled Orders	145	140	103	111	132	133	133	-4.9 C
Coated Papers - Shipments	5716	6249	484	437	481	473	5908	-5.7
- New Orders	5864	6281	448	459	515	467	5763	-8.3
- Unfilled Orders	513	575	385	424	446	434	434	-23.6 C
Unctd Free Sheet - Shipments	8780	9207	830	793	870	817	9731	4.9
- New Orders	9076	8939	808	783	903	867	9801	9.1
- Unfilled Orders	687	430	423	422	453	493	493	15.6 C
Thin Papers - Shipments	280	275	23	22	24	21	278	0.0
Cotton Fiber Paper - Shipments	133	147	12	12	12	13	144	-2.9
Bleached Bristols - Production	931	959	75	76	80	80	921	-4.1
Tissue Paper - Production	4789	4921	413	394	432	412	4933	0.5
Total Packaging & Other Paper	5497	5555	441	468	450	421	5236	-7.2
Unbl. Kraft Paper - Shipments	3666	3666	281	315	289	273	3424	-8.0
Other Paper - Production	1832	1889	160	153	161	148	1812	-5.5
TOTAL PAPER-Production-Unadj. *	32823	34417	2870	2771	2944	2812	34107	-1.5
- Production - S.A. *			2791	2816	2808	2816	33969	-1.3
PAPERBOARD - PRODUCTION								
Solid Wood Pulp Furnish	24779	26403	2230	2137	2185	2108	25561	-4.2
Unbl. Kraft Linerboard (1)	15001	16037	1304	1301	1316	1253	15288	-5.8
Production for Export	2281	2086	164	145	152	151	1745	-17.9
Other Unbl. Kraft Paperboard	1121	1149	109	106	89	101	1206	3.1
Semichemical Paperboard	4731	5169	453	422	447	427	5095	-2.2
Production for Export	193	149	19	16	20	13	185	23.4
Solid Bleached Paperboard	3926	4048	363	309	333	327	3973	-2.8
Production for Export	515	478	39	32	37	41	457	-4.6
Recycled Paperboard	7398	7637	671	634	694	659	7749	0.2
Production for Export	24	17	1	1	2	1	14	-7.9
TOTAL PAPERBOARD-Prod.-Unadj. *	32177	34019	2993	2771	2879	2767	33310	-3.2
- Containerboard Prod.(Dom. Use)	19173	20993	1751	1727	1766	1695	20440	-3.7
- Boxboard Prod.(Dom. Use) (2)	5551	5783	519	458	500	477	5766	-1.4
- All Other P'bd Prod.(D.U.) (2)	4441	4531	409	392	403	390	4703	2.7
- Total Paperbd Prod. for Export	3012	2731	224	194	210	205	2401	-13.3
TOTAL PAPERBOARD PROD.- S.A. *	32224	33982	2815	2777	2803	2793	32991	-2.9
TOTAL PAPER AND PAPERBOARD								
Production - actual *	65000	68457	5772	5542	5823	5580	67417	-2.4
Production - S.A. *			5806	5593	5611	5608	66960	-2.1

(1) Includes all exports of kraft paperboard. P - Revised P - Preliminary S.A. - Seasonally Adjusted

(2) Data for unbl. kraft folding boxboard incl. in All Other P'bd.

* NOTE: Year 1984 contains one more day than year 1983 and 1985.

C.I. - Corrected Data - Derived through an error from incorrect monthly data: Jan -41.6 -50.9 -47.8 -14.0 -12.1 -31.3 -26.0 -14.0
Feb -2.2 -2.1 -2.0 -14.8 -23.1 -32.2 -21.6 -14.7
Mar -1.1 -1.1 -1.1 -1.1 -1.1 -1.1 -1.1 -1.1

GROUNDWOOD PAPER, UNCOATED
SHIPMENTSCOATED PAPER
SHIPMENTSUNCOATED FREE SHEET PAPERS
SHIPMENTSCOTTON FIBER PAPER
SHIPMENTSUNBLEACHED KRAFT PACKAGING
AND INDUSTRIAL CONVERTING PAPER
SHIPMENTSOTHER PAPER
PRODUCTION

1983 1984

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WORLD PULP STATISTICS
(Thousands of Tons)

	YEAR		JULY	AUG	SEPT	OCT	Annual	% Change
	1983	1984	1985	1985	1985	1985	Rate	from same
							Y-T-D	Period
							1985	Last Year
TOTAL WOOD PULP					R	P		
Total Wood Pulp - Production	52537	59548	4492	4518	4433	4777	54481	-2.8
- Imports	4093	4490	342	387	340	355	4471	1.8
- Exports	3644	3544	334	303	298	269	3761	4.2
- New Supply	52986	56445	4550	4602	4475	4863	55191	-2.9
Dissolving Pulp - Production	1261	1206	87	77	82	106	1184	-3.1
- Imports	192	161	18	11	23	15	177	8.3
- Exports	647	605	52	35	35	45	640	6.3
- New Supply	806	772	53	53	70	76	721	-7.8
Paper Grades - Production	42358	44732	3626	3666	3604	3865	43902	-2.7
Chemical Pulp - Imports	1706	4023	141	164	239	332	4047	3.4
- Exports	2958	2945	282	266	262	220	3095	4.8
- New Supply	41106	45810	3688	3784	3642	3977	44904	-2.7
Groundwood and Thermo-Mech. - Production	5067	5509	447	427	423	454	5317	-4.2
- Imports	195	306	31	12	17	7	197	-26.0
- Exports	40	54	1	2	1	4	26	-52.6
- New Supply	5222	5762	417	413	419	457	5488	-4.8
Semi-Chemical - Production	3851	4100	332	348	324	351	4078	-1.3
- Imports								
- Exports								
- New Supply	3851	4100	332	348	324	353	4078	-1.3
			Included in Groundwood Pulp					
MARKET WOOD PULP								
Total Market - Production	6478	6891	590	541	519	572	6805	-1.5
Wood Pulp - Imports	2945	2968	246	267	213	219	2818	-3.4
- Exports	3421	3511	274	312	305	290	3754	6.4
- New Supply	6902	6347	563	496	427	521	5870	-6.8
Dissolving Pulp - Production	1260	1297	87	77	82	105	1183	-2.4
- Imports	210	204	18	9	24	11	179	-13.4
- Exports	698	690	31	49	43	53	657	-3.8
- New Supply	772	770	75	36	63	63	704	-4.2
Paper Grades - Production	5206	5680	502	463	435	463	5606	-1.4
Chemical Pulp - Imports	2698	2664	218	254	173	225	2557	-3.2
- Exports	2721	2621	240	263	263	237	3095	8.9
- New Supply	5181	5524	478	455	345	451	5068	-7.5
Groundwood Pulp and All Other - Production	12	13	1	1	2	4	17	24.3
- Imports	38	100	9	4	17	4	82	19.4
- Exports	0	0	0	0	0	0	1	0.0
- New Supply	49	113	10	5	18	7	98	19.3

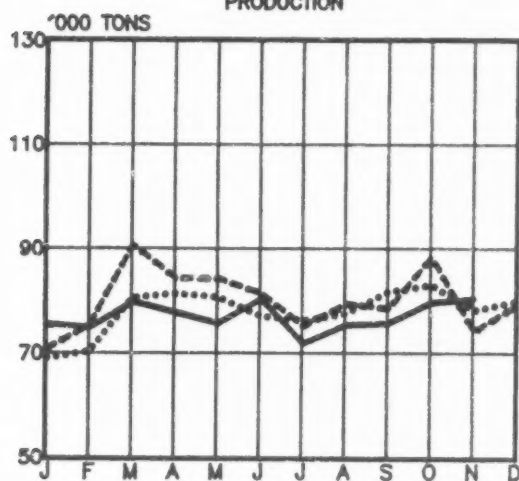
SOURCES: Total Wood Pulp Production & Market Wood Pulp Production, Imports & Exports - Pulp Division, Pulp, Materials and Technology Group, API. Total Wood Pulp Imports & Exports - Department of Commerce.

P I B R O S R A W M A T E R I A L S
(Thousands of tons)

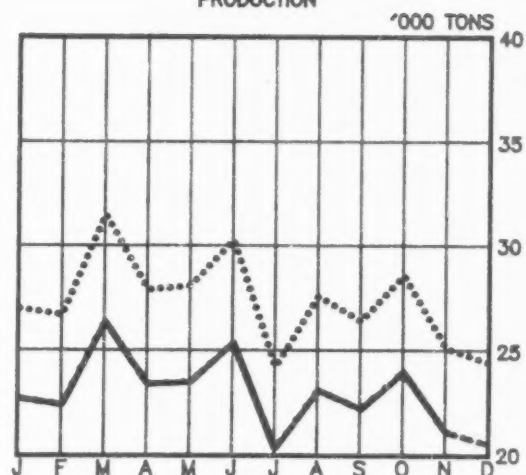
CONSUMPTION AT PAPER & PAPERBOARD MILLS								
Total	68130	70878	5639	5794	5694	5998	68828	-3.0
Total Wood Pulp	51434	54664	4426	4508	4359	4689	53605	-2.7
Waste Paper	14696	16215	1212	1294	1244	1309	15223	-3.9
INVENTORIES								
Own Use Wood Pulp at Pulp Mills	170	174	186	180	184	192	192	16.9
Mkt Pulp at Pulp Mills (Paper Grades)	384	585	561	541	502	508	508	1.1
Mkt Pulp at Ppr. & Bd. Mills	550	484	414	410	407	426	426	-15.2
Waste Paper at Paper & Bd. Mills	920	1025	1011	958	919	976	976	.0
Days of Supply at Pulp Mills of Chemical Paper Grade Mkt Pulp	26	42	11	11	12	12	32	-5.9

SOURCES: Wood Pulp Data, Pulp Division, Pulp, Materials and Technology Group, API. Waste Paper Data, Paper Recycling Committee, API.
P - Preliminary; R - Revised; (0) - Indicates zero to five hundred short tons

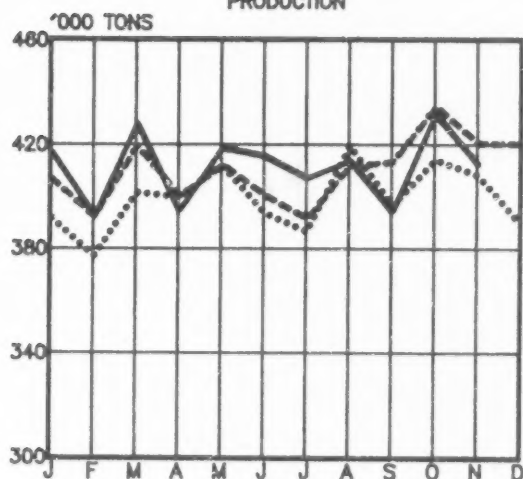
BLEACHED BRISTOLS PRODUCTION



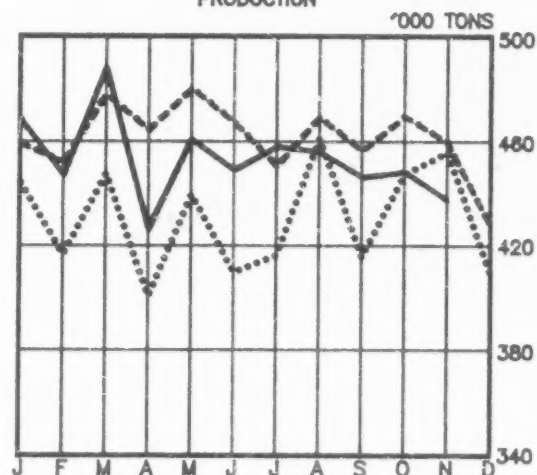
THIN PAPER PRODUCTION



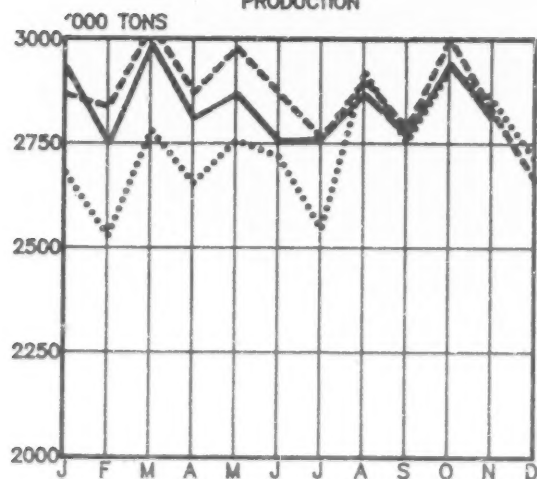
TISSUE PAPER PRODUCTION



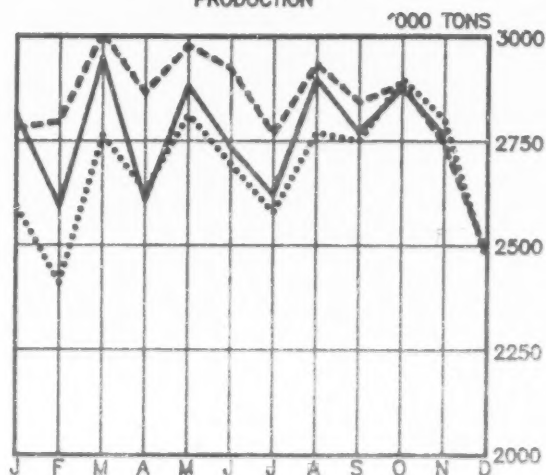
NEWSPRINT PRODUCTION



TOTAL PAPER PRODUCTION



TOTAL PAPERBOARD PRODUCTION



1983 1984 -----1985

F I B R O U S R A W M A T E R I A L S
(Thousands of Standard (128 cubic foot) Cords)

		YEAR	1984	JULY	AUG.	SEPT.	OCT.	Annual	% Change
		1983		1985	1985	1985	1985	Rate	from same
								Y-T-D	Period
								1985	Last Year
PULPWOOD									
Total U.S.	- Total Receipts	84475	88876	7003	7015	6913	7880	86074	-4.0
	- Total Consumpt	85442	87646	7022	6925	6904	7666	86070	-2.6
	- Residues *	32755	32072	2413	2566	2493	2927	30787	-5.2
	- Inventories	5229	5574	4881	4970	4958	5312	5312	-3.0
So. Atlantic	- Total Receipts	25736	27654	2215	2192	2252	2615	27530	-0.3
	- Total Consumpt	25847	27344	2225	2198	2277	2554	27714	1.1
	- Residues *	7904	8198	581	636	627	824	7889	-4.4
	- Inventories	1163	1444	1086	1059	1044	1152	1152	-15.7
Northeast	- Total Receipts	7051	7665	621	599	586	676	7444	-2.0
	- Total Consumpt	7274	7474	624	550	560	593	7429	-1.7
	- Residues *	1194	1501	110	110	126	128	1544	4.8
	- Inventories	577	590	409	425	445	517	517	-2.6
South Central	- Total Receipts	29409	30693	2404	2425	2389	2645	29977	-3.5
	- Total Consumpt	29152	30502	2468	2458	2432	2623	30173	-1.5
	- Residues *	9218	9059	711	768	734	854	9307	2.0
	- Inventories	1536	1304	1148	1121	1149	1193	1193	-11.9
North Central	- Total Receipts	6265	6872	530	558	518	621	6547	-6.5
	- Total Consumpt	6343	6563	502	522	492	556	6320	-5.3
	- Residues *	1822	1472	97	109	118	119	1344	-11.5
	- Inventories	851	906	871	903	835	979	979	10.9
West	- Total Receipts	16014	15992	1231	1241	1168	1321	14575	-10.8
	- Total Consumpt	16826	15761	1201	1197	1143	1340	14434	-10.1
	- Residues *	12612	11842	914	941	888	1002	10703	-11.7
	- Inventories	1102	1330	1367	1462	1425	1471	1471	9.7

* - Consumption of Residues in Cord Equivalents.

SOURCE: American Pulpwood Association

24-Dec-85

U N I T E D S T A T E S T R A D E W I T H C A N A D A

IMPORTS FROM CANADA

		YEAR	1984	SEPT.	1985	OCT.	1985	Annual	% Change
		Tons	5000's	Tons	5000's	Tons	5000's	Rate	from same
								Y-T-D	Period
								1985	Last Year
Pulpwood, Roundwood	(in cords of 128 cubic feet)	207520	10591	1141	691	46	4	24794	-87.4
Pulpwood chips		2061370	45353	80144	2030	46512	1116	814283	-62.4
Wood Pulp, Total		4055513	1678905	303476	98336	328847	106965	4027582	0.2
Waste Fibrous Materials, Total		151957	25187	12794	2451	9570	1362	151560	-4.2
Paper, Board & Products, Total		9101285	4048656	846943	367612	837406	379320	9753818	3.7
Paper, Paperboard, Wet Machine Bd. & Constr. Paper & Bd.		9330954	4327255	837934	353869	826034	362899	9664193	1.5
Paper, Paperboard & Products		8948073	3946084	822505	360212	810844	371340	9374420	5.0
Paper & Paperboard, Only		8877742	3776684	813502	348469	794471	354918	9284794	4.8
Paper, Total		8662094	2205	799141	342866	788251	351780	9133572	5.6
Newsprint		7681141	24596	713986	298077	641727	302430	8140430	5.9
Printing, Writing & Rel. Pap.		852879	457439	69434	36655	78969	3894	820974	-1.3
Back. & Ind. Conv. Paper		101131	59405	12717	5418	13022	6196	121832	20.4
Special Industrial Paper		3232	5437	288	512	484	608	3386	1.3
Tissue Paper		23512	15326	2716	1735	4048	2542	46449	130.2
Paperboard, Total		215648	62479	14360	3573	11221	3138	151222	-30.7
Conv'd Paper&Paperbd Products		70331	121401	9003	13743	11372	16422	89625	30.2
Wet Machine Board		2098	1426	203	145	219	161	2243	4.3
Construction Paper & Board		451113	101146	24235	7256	26324	7820	377155	-19.8

Pulpwood, Roundwood	(in cords of 128 cubic feet)	95117	5698	4541	297	7747	458	49188	-42.1
Pulpwood chips		28445	1544	7473	369	10282	577	90530	193.2
Wood Pulp, Total		180850	82653	15099	5891	13990	5116	202510	11.6
Cotton Pulp & Other Pulp		10474	6605	1063	506	1661	805	12443	20.1
Waste Paper		325712	37917	15729	1575	16573	1721	219991	-34.4
Paper, Board & Products, Total		756499	524570	61311	40446	72819	43950	742602	-2.7
Paper, Paperboard, Wet Machine Bd. & Constr. Paper & Bd.		568696	358082	47847	28635	61766	30584	580147	2.4
Paper, Paperboard & Products		726888	511454	59071	34421	70575	42867	718017	-2.0
Paper & Paperboard, Only		540085	344966	45610	25610	59522	29500	555562	3.7
Paper, Total		246791	245610	20124	17366	22079	14552	281438	-5.3
Newsprint		4493	3678	256	202	316	362	3569	-25.5
Printing, Writing & Rel. Pap.		137839	125802	8607	7758	10917	10017	137886	-1.2
Back. & Ind. Conv. Paper		46661	26918	2857	1738	3776	2110	44205	-2.2
Special Industrial Paper		104039	85328	7883	7200	7674	6764	92544	-10.9
Tissue Paper		3758	3883	521	409	196	299	3136	-11.6
Paperboard, Total		243294	99357	25486	8304	36843	9949	274124	14.9
Conv'd Paper&Paperbd Products		186803	166488	13464	13811	11053	13367	162455	-17.5
Wet Machine Board		5312	3707	519	345	564	440	5606	6.6
Construction Paper & Board		24299	9408	1719	681	1680	643	18979	-26.2

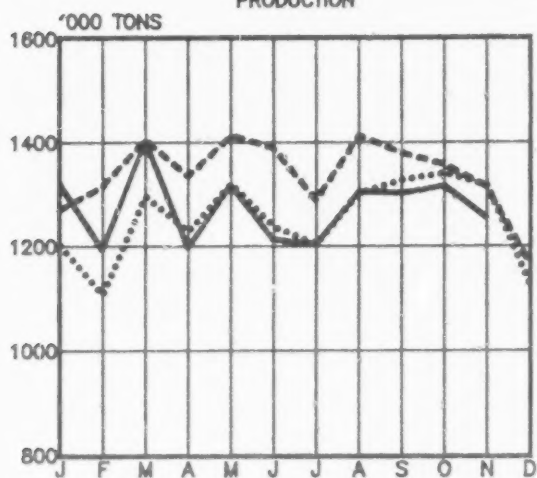
SOURCE: Bureau of Census, Department of Commerce.

* - Estimate of tonnage based on square foot data

24-Dec-85

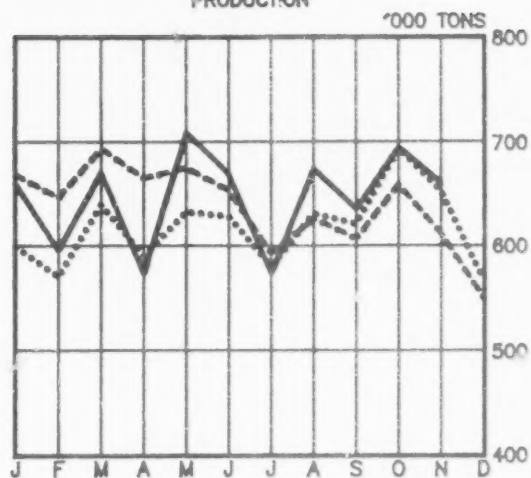
UNBLEACHED KRAFT LINERBOARD

PRODUCTION



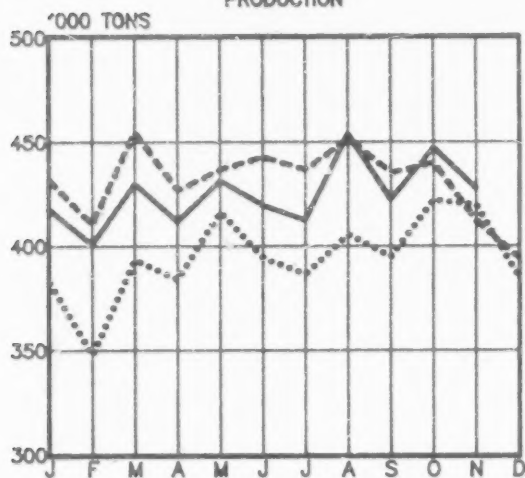
RECYCLED PAPERBOARD

PRODUCTION



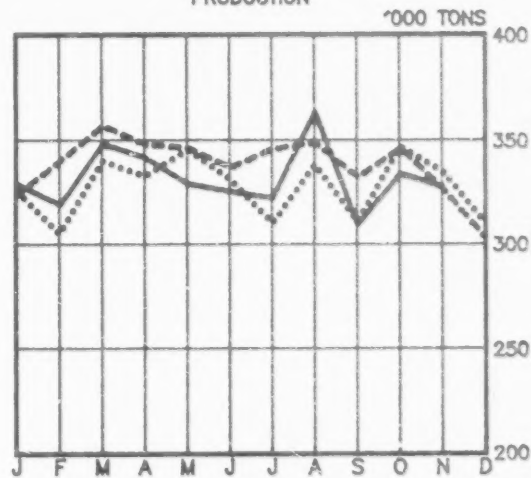
SEMICHEMICAL PAPERBOARD

PRODUCTION



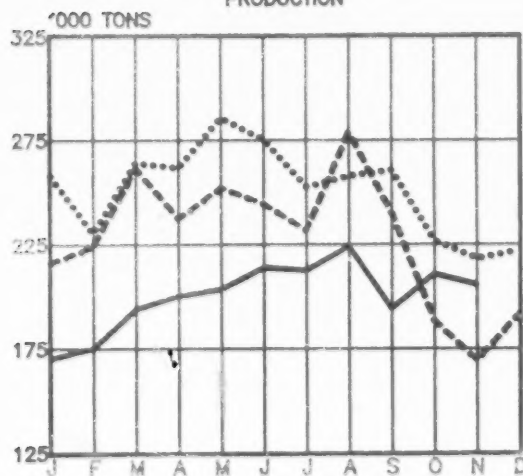
SOLID BLEACHED PAPERBOARD

PRODUCTION



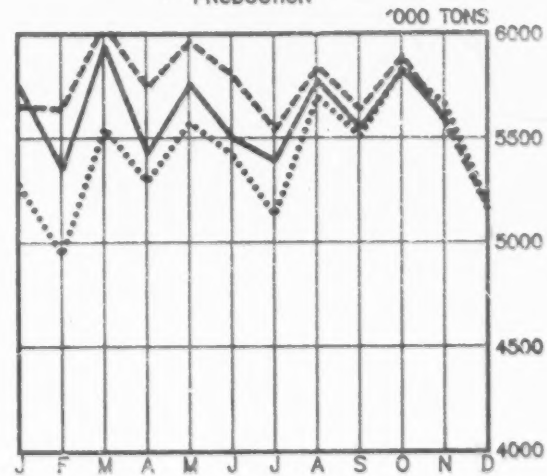
PAPERBOARD FOR EXPORT

PRODUCTION



TOTAL PAPER AND PAPERBOARD

PRODUCTION



1983 1984

-----1985

IMPORTS

	YEAR 1984 Tons	1984 \$000	SEPT. Tons	SEPT. \$000	OCT. Tons	OCT. \$000	(1) Annual Rate Y-T-D 1985	% Change from same Period Last Year
Pulpmud, Roundwood (cords)	207733	10615	1141	691	46	4	36958	-81.2
Pulpmud Chips	2062545	45396	80414	2032	46515	1127	815311	-62.1
Total All Imports	15749471	7204351	1365128	608415	1385705	626330	16250921	3.4
Wood Pulp, Total	4490081	1844768	143072	110200	354718	114446	4470816	1.8
Waste Paper	109712	11692	7500	887	8275	957	87404	-21.4
Other Fibrous Materials	64367	2097	6493	2312	2949	1302	88836	27.2
Paper, Board & Products, Total	11075312	5323744	1011154	493016	1019753	509626	11603865	4.2
Paper, Paperboard, Wet Machine Bd., & Construction Paper & Board	10854312	4781437	983807	413285	990788	451405	11328079	3.7
Paper, Ppbd & Ppbd ex Cst&WMB	10575656	5207697	980674	483884	987328	499895	11160578	5.1
Paper & Paperboard, Only	10354656	4665378	953327	424152	958363	441674	10884792	4.7
Paper, Total	10112041	4591486	936434	419637	945115	417696	10707048	5.5
Newsprint	7893877	3299570	740287	307997	743997	318761	8516640	7.7
Printing & Writing	2042368	1168989	176951	99721	177939	104270	1964695	-4.9
Uncoated Groundwood	1090049	548791	94925	47539	99221	53746	1058568	-2.9
Coated Print. & Impreg. Pap.	428274	295848	39168	29689	39023	28654	514244	23.0
Uncoated Free Sheet	476950	284057	41452	20985	37754	19904	367106	-27.4
Uncoated Book	254926	156296	23726	12007	21029	11430	201470	-23.7
Writing and Similar Paper	222024	127761	17726	8978	16726	8474	165636	-31.4
Thin (except Cigarette)	46427	39513	1392	1439	1876	1851	23627	-53.8
Bristols	667	784	14	11	66	110	1050	58.8
Total Pkg & Other Paper	145484	102565	16407	10120	16517	10361	169468	14.1
Unbleached Kraft Paper	42854	19568	9267	3125	8404	2870	62501	39.6
Other Pkg. & Indust. Paper	102629	82997	7141	6995	8114	7492	106967	3.0
Tissue	30312	20362	2789	1798	6671	4301	56245	100.9
Paperboard, Total	242615	73892	16893	4516	13248	3979	177744	-28.1
Test or Containerboard	70028	22218	4279	1353	3778	1058	50065	-29.2
Semi-Chemical Corrugating	103968	26098	7425	1407	3627	707	63305	-39.6
Other Paperboard	68620	25576	5189	1756	5843	2214	64374	-10.4
Convtd Paper/Paperbd Products	221000	542319	27347	59731	28966	58221	275786	25.9
Paper Products, Total	186199	474151	25103	55015	26580	53628	251323	36.5
Paperboard Products, Total	34800	68168	2244	4718	2386	4593	24463	-30.0
Wet machine Board	2826	2017	282	223	287	190	3315	14.2
Construction Paper & Board	496830	114080	30198	8910	32119	9540	439972	-14.9
Notes								
Other: No Weight Avail. (\$000)		195737		20820		20831	220610	11.0
Total Imports Incl. Other(\$000)		7400088		627235		647161	7525354	2.2

EXPORTS

	1984 Tons	1984 \$000	SEPT. Tons	SEPT. \$000	OCT. Tons	OCT. \$000	(1) Annual Rate Y-T-D 1985	% Change from same Period Last Year
Pulpmud, Roundwood (cords)	95441	5714	5550	342	7747	458	50849	-40.4
Pulpmud Chips	2325213	164058	22428	15534	135761	8796	2040265	-12.2
Total All Exports	11300450	4524778	898130	318466	897805	313930	11245172	-1.6
Wood Pulp, Total	3593585	1501948	297681	104790	268546	91980	3760660	4.2
Cotton Pulp and Other Pulp	84883	63545	10174	6806	8282	5053	105780	24.5
Waste and Old Paper	3235441	408128	231788	24196	281017	28482	3288359	2.5
Paper, Board & Products, Total	4386541	2551157	358487	182675	339960	188414	4090374	-9.7
Paper, Paperboard, Wet Machine Bd., & Construction Paper & Board	3818804	1789129	324478	133078	302650	128214	3592780	-9.0
Paper, Ppbd & Ppbd ex Cst&WMB	408873	2507184	352767	179573	333681	184667	4024398	-9.6
Paper & Paperboard, Only	3741136	1745156	318759	129977	296372	124467	3526804	-8.8
Paper, Total	810547	632490	60877	40437	66085	52353	787940	-2.9
Newsprint	306198	133964	26114	11063	28638	12429	317027	3.3
Printing & Writing	203156	219922	13848	14541	16786	17560	201036	-2.1
Uncoated Groundwood	30405	28875	1974	1969	3017	2786	37224	22.7
Clay Coated Paper	85714	71365	5911	5186	7556	5822	77441	-11.7
Uncoated Free Sheet	65410	87255	4131	3459	5071	6252	66467	2.3
Other Printing & Writing	21627	32427	1631	1929	1142	2700	19904	-11.2
Total Pkg. & Other Paper	284185	259323	19589	21472	19519	20994	250894	-10.9
Unbleached Kraft	106712	44182	5093	2207	5079	2303	71610	-34.4
Other Pkg. & Indust. Paper	177473	214941	14496	19266	14440	18691	179284	4.0
Tissue	17009	19281	1326	1360	1142	1370	18983	8.7
Paperboard, Total	2930588	1112665	257882	81540	230287	72114	2738865	-10.4
Solid Wood Pulp	2761732	1040239	234804	74497	202968	66164	2509522	-13.2
Total Linerboard	2056014	628531	180647	43817	155498	39283	1819037	-16.5
Bleached Kraft Linerboard	141367	57788	20111	5852	9393	3487	127765	-5.7
Unbleached Kraft Linerboard	1916667	570743	160536	37965	146105	34797	1691272	-17.3
Other Unbleached Kraft	110878	51270	5426	2424	3822	2100	105408	-12.4
Other Bleached Kraft	543269	348218	42832	27104	38829	24699	529019	-4.5
Semi-Chemical Corrugating	49612	12220	5900	1151	4819	1082	56058	45.5
Recycled Paperboard	168856	72427	23078	7043	27319	5950	229343	40.5
Convtd Paper/Paperbd Products	567737	762028	34009	49596	37309	60200	497554	-14.8
Paper Products, Total	286493	516149	17749	35631	17339	42014	244354	-18.0
Paperboard Products, Total	281334	245679	16259	33965	19971	18186	253240	-11.5
Wet Machine Board	13782	7335	1407	588	1274	760	13113	-4.3
Construction Paper & Board	63887	16318	4313	2514	5005	2988	52863	-20.6
Notes								
Other: No Weight Avail. (\$000)		8041		448		623	6658	-25.4
Total Exports Incl. Other(\$000)		4531621		318914		314553	4085739	-11.1

Source: Bureau of Census, U.S. Department of Commerce. E = Incl. estimate of tonnage based on square foot data.
 (1) Annual Rate Y-T-D is in tons unless otherwise specified in item description.

PRODUCER PRICE INDEXES
1967 = 100

	1983	1984	AUG.	SEPT.	OCT.	NOV.	Annual Rate Y-T-D 1985	% Change from same Period Last Year
Pulp, Paper and Products except Building Grades	271.4	292.9	289.8	289.2	288.8	287.7	292.6	0.1
Pulp Paper & Products, ex. Build- ing Grades & ex Waste Paper *	273.3	293.8	292.3	291.9	291.6	290.4	295.0	0.6
Total Wood Pulp	347.1	395.0	338.4	337.0	337.7	333.1	348.5	-11.8
Total Paper	282.3	303.2	303.7	303.3	301.4	301.0	303.8	0.3
Total Paper, exc. Newsprint	277.0	301.2	300.1	299.1	296.2	295.3	299.1	-0.7
Newsprint	303.0	324.1	334.9	333.9	331.2	331.0	333.2	3.2
Total Paperboard	250.8	280.6	266.3	266.6	265.9	264.2	276.4	-1.1
Total Paper and Paperboard *	272.4	296.1	292.0	291.8	290.3	289.5	295.2	-0.1
Converted Products	265.4	280.7	286.7	286.2	286.5	285.4	288.3	3.0
Waste Paper	158.6	240.1	141.4	129.5	126.8	126.6	150.9	-38.0
All Commodities	303.1	310.4	307.2	305.8	308.0	309.7	308.7	-0.5
Industrial Commodities	315.7	322.6	323.6	322.5	324.4	325.0	323.9	0.4

SOURCE: Producer Price Indexes: Bureau of Labor Statistics, U.S. Department of Labor * Computed by API

24-Dec-85

Paper and Allied Products
Cost Containment Factors in the 1980's
24-Dec-85

Year	Net Sales	Capital Expenditures	Fossil Fuel & Purchased Electricity per Ton of Output	Self- Generated Energy as % of Total	Bureau of Labor Statistics			
					Output Index	Output/ Employee Hour	Output/ Prod. W'ker Hour	First Year Wage Increases
	\$ Mil	\$ Mil	% from 1979	%	'77 = 100	'77 = 100	'77 = 100	%
1979	55,339	5,240	-	46.6	106.0	105.4	106.2	-
1980	56,250	6,520	-4.4	48.3	105.3	105.2	106.4	9.2
1981	62,502	6,110	-8.9	50.0	102.4	104.4	105.5	8.7
1982	60,293	5,600	-12.7	51.9	103.1	111.3	113.7	6.9
1983	65,008	5,920	-19.0	54.4	111.6	120.0	121.8	5.6
1984	71,891	7,210	-22.8	55.2	117.6	123.9	125.5	3.3
1985	72,200 E	8,490	-24.1 *	56.0 *	116.0 E	125.0 E	126.0 E	2.3 **

E - Estimated

* - First Three Quarters

** - Contracts through Dec. 1, 1985

about 3% below its 1984 high. Recycled paperboard goes to a wide variety of end-use markets, including a sizable volume to non-packaging users; its exports are minimal. Use of recycled paperboard gained market share in the important folding box market and showed some improvement in the non-packaging grades as well. The 1985 production total is estimated at 7.7 million tons, about 1% above the 7.6 million tons produced in 1984.

Total paperboard consumption in 1985 (production for domestic use plus imports) is estimated at 30.7 million tons, about 2.5% below the recorded high of 31.5 million tons established in 1984. In terms of furnish, kraft paperboard consumption was down 3.7%; semichemical paperboard, 3.6%; bleached paperboard 2.4%; while recycled paperboard showed a gain of a fraction of one per cent.

FIBROUS RAW MATERIALS

Total production of the chemical paper grades of market pulp rose by 4.3% from October to November 1985, but the 11 months 1985 total was 1.6% below the comparable total for 1984. The November 1985 level of shipments, however, fell 3.1% from October to November and inventories at pulp mills rose by 25,000 tons. This rise reversed the downtrend in these inventories that had been evident since their peak at the end of March 1985. Nonetheless, as of the end of November these inventories were 50,000 tons (10%) below their year-ago level; this was equivalent to 35 days of supply, compared to 42 days of supply as of the end of 1984.

COST CONTAINMENT

Cost containment has been a major priority of paper companies during the 1980's. This is evident in many actions taken by the industry including its investment in plant and equipment. In the 1980-1985 period, paper companies spent \$39.8 billion for such purposes, which was equivalent to more than 10% of their total net sales. The Department of Commerce reports that paper companies plan to spend \$8.8 billion for new plant and equipment in 1986, 3.7% over 1985's record high total of \$8.5 billion, higher than the 2.4% gain projected for all industries. API studies indicate that two-thirds of plant and equipment expenditures by paper companies are directed toward cost reduction and productivity improvements.

The results of these programs show up in various productivity measures in the industry, as shown in the lower table on page 10. API's Energy and Materials Department reports that the paper industry reduced its use of fossil fuels and purchased electrical energy by 24.1% from 1979 through September 1985. This Division also reported that the paper industry increased its use of self-generated and waste fuels from 46.4% of total energy in 1979 to 56.0% in that same period. A major part of this shift stemmed from investment in biomass boilers: in 1979 hogged fuel and bark provided 9.0% of total energy; in the first three quarters of 1985 these fuels provided 16.7% of the total.

A significant part of the industry's capital expenditures are also directed toward capacity expansion. The new mills and new machines have tended to be state-of-the-art equipment that minimizes the cost-per-ton of output. The API Capacity Department reported that paper and paperboard capacity increased by 8,439,000 tons (13.1%) from 1979 to 1985 and wood pulp capacity by 6,515,000 tons (12.6%). In that same period roughly 3 million tons of paper and paperboard capacity were removed from the capacity totals, indicating that more than 11 million tons of efficient modern paper and paperboard capacity was installed since 1979.

Another measure of increased productivity shows up in the employment data. According to the Bureau of Labor Statistics, total employment at paper, paperboard and wood pulp mills amounted to 271,400 employees in 1979. The 1985 figure, based on 10 months data, is estimated at 257,700 employees. In that same period paper and paperboard production (including estimates for building paper and board) rose an estimated 4,400,000 tons (6.8%).

The Bureau of Labor Statistics has also just published an update of its industry productivity data. The Bureau measures productivity in terms of either output per production worker hour and output per total employee hour or output per production worker hour. The Bureau's output index is constructed by weighting production of each grade of paper and paperboard by its value or value added, so that total output growth properly reflects the contribution of strong growth grades like the white paper grades. The output index also includes a measure of wood pulp production. Current estimates of these productivity data are published in our Industry Data Sheet attached to this report.

API estimates that the index of output per employee-hour in pulp, paper and board mills in 1985 will be about 125 (1977=100), 18.8% above the 1979 level. Output per production worker manhour, on this same basis, will be about 126, 18.6% above its 1979 level. The newly-revised data for 1983 and 1984, and API's estimates for the first 11 months of 1985, are shown on the Industry Data Sheet attached to this report.

The table also shows that the productivity growth trend was virtually flat from 1984 to 1985, a typical pattern in times of output declines. First year wage increases in 1985 contracts (to Dec. 1) at the mills that reported such data to the API's Employee Relation Department averaged 2.3%, compared to 3.7% for the same period in 1984 and 9.2% for the full year 1980. This Department also reported that second year wage increases at the mills that reported such information are 3.4%. These percentages do not include cash bonuses included in many of these contracts, which tended to be in the neighborhood of \$1,000 per employee.

The table on page 10 summarizes these various trends relating to the paper industry's cost containment programs.

INDUSTRY FACT SHEET

AMERICAN PAPER INSTITUTE, INC.
260 Madison Avenue
New York, New York 10016

December 30, 1985

	PRODUCTION (000 TONS)					
	Nov. 85	Oct. 85	Nov. 84	Jan. 85	Nov. 84	% Change 85/84
PAPER GRADES						
Newsprint	438	449	460	4990	5110	-2.4
Printing & Writing	1541	1613	1522	16953	16971	-0.1
Uncoated Groundwood (s)	137	147	126	1385	1452	-4.6
Coated Paper (s)	473	481	530	5416	5743	-5.7
Uncoated Free Sheet Paper (s)	817	870	760	8920	8506	4.9
Thin Paper (s)	21	24	21	255	255	0.0
Cotton Fiber Paper (s)	13	12	12	132	136	-2.9
Bleached Bristols (s)	80	80	74	845	880	-4.1
Tissue Paper	412	432	420	4522	4500	0.5
Total Pkg & Other Paper	421	450	427	4800	5170	-7.2
Unbleached Kraft Packaging & Indl. Converting (s)	273	289	288	3139	3412	-8.0
Other Paper *	148	161	139	1661	1758	-5.5
TOTAL PAPER	2812	2944	2830	31265	31752	-1.5
PAPERBOARD GRADES						
Unbleached Kraft Paperboard	2259	2337	1396	15119	15942	-5.2
Unbleached Kraft Linerboard	2108	2185	1313	14014	14870	-5.8
Other Unbl. Kraft Paperboard	151	152	83	1106	1072	3.1
Semichemical Paperboard	101	89	412	4670	4775	-2.2
Bleached Paperboard	13	20	326	3642	3746	-2.8
Recycled Paperboard	41	37	611	7103	7087	0.2
TOTAL PAPERBOARD	2767	2879	2744	30535	31550	-3.2
TOTAL PAPER AND PAPERBOARD	5580	5823	5574	61799	63302	-2.4
WOOD PULP (ALL GRADES)						
	Oct. 85	Sept. 85	Oct. 84	Jan. 85	Sept. 84	% Change 85/84
Dissolving & Special Alpha	106	82	103	987	1019	-3.1
Bleached Sulfite	118	114	105	1151	1139	1.1
Unbleached Sulfite	17	14	20	173	223	-22.6
Bleached & Semi-Bl. Sulfate	2044	1808	1978	18907	18698	1.1
Unbleached Sulfate	1687	1668	1748	16354	17554	-6.8
Semichemical	353	324	361	3398	3444	-1.3
Groundwood & Thermomechanical	454	423	460	4431	4627	-4.2
TOTAL PULP DIVISION DATA	4777	4433	4774	45401	46704	-2.8

(s) - Shipments
P - Preliminary

R - Revised

DECEMBER 31, 1985

	Full Year		INDUSTRY DATA 1985			Ann. Rate Year - To - Date	% From Same Pd. Last Year
			R	P			
PAPER AND PAPERBOARD -- Tons (000)	1983	1984	Sept	Oct	Nov	1985	
Total Production (API)..... excluding :...	65000	68457	5542	5823	5580	67417	-2.4
Total Seasonally Adjusted.....construction:...			5593	5611	5608	66960	-2.1
Imports (including Products)..... and wet :..E	8509	10576	981	987	980	11216	5.4
Exports (including Products)..... machine :..E	4501	4309	353	334	341	4030	-7.8
Apparent Consumption..... grades :...	69006 a	74724 b	6221	6264	6248	74145 c	-0.7
Paper Production & Tonnage Capacity.....	92.0 g	93.4 g	88.1	90.2	89.0	90.5 gh	-
Paperboard Production & Tonnage Capacity.....	90.8 g	94.8 g	91.5	91.3	90.8	90.2 g	-
			Aug	Sept	Oct		
IMPORTS.....Including Construction and :...	8985	11075	910	1011	1020	11604	4.2
EXPORTS..... WMB Grades (excl. HPB) :...	4568	4387	361	359	340	4090	-9.7
MARKET WOOD PULP PRODUCTION - Tons (000).....	6478	6891	541	519	572	6806	-1.5
TOTAL WOOD PULP PRODUCTION - Tons (000).....	52537	55548	4518	4433	4777	54479	-2.8
WOOD PULP IMPORTS - TONS (000).....	4093	4490	387	340	355	4471	1.8
WOOD PULP EXPORTS - TONS (000).....	3644	3594	303	298	269	3762	4.2
RAW MATERIALS CONSUMPTION - Tons (000)							
..PAPER AND BOARD MILLS : excluding :			Aug	Sept	Oct		
Wood Pulp.....:consumption for:.....	51434	54664	4500	4359	4689	53603	-2.7
Waste Paper.....:construction & :.....	14696	16015	1294	1244	1309	15222	-3.9
TOTAL..... WMB grades :.....	66130	70679	5794	5603	5998	68825	-3.0
PULPWOOD CONSUMPTION Cords(000)Amer.Pulpwd. Assn	83608	87646	6925	6904	7666	86070	-2.6
EMPLOYMENT (000)			Sept	Oct	Nov		
Paper and Allied Products.....Total.....	661.6	682.3	684.2	684.1	688.6	683.2	0.2
Pulp, Paper and Board Mills.....Total.....E	258.2	263.9	254.2	254.3	254.0	257.8	-2.3
AVERAGE HOURLY EARNINGS OF PRODUCTION WORKERS (\$)							
Paper and Allied Products.....	9.94	10.44	10.89	10.89	10.99	10.80	3.7
Pulp, Paper Mills.....E	11.70	12.45	13.31	13.33	13.33	13.07	5.3
Paperboard Mills.....E	11.08	12.99	13.67	13.73	13.74	13.53	4.4
CAPITAL EXPENDITURES, PAPER & ALLIED PRODUCTS (Rept. by US Dept. of Com., Ann. Rates, Bill.\$)*	5.92	7.21	1985 Q2	1985 Q3	1985 Q4		
INDEX OF OUTPUT PER MAN-HOUR (1977=100).....			8.10	8.64	9.47	8.49y	17.8
			Sept	Oct	Nov		
..IN PULP, PAPER :...Production Workers.....	121.9	125.5	123.7	129.9	125.2	126.2	-0.4
..AND BOARD MILLS:..All Employees.....	109.5	123.9	123.4	128.7	124.0	125.0	-0.1
PAPER AND ALLIED PRODUCTS (Million \$)			Sept	Oct	Nov		
Industry Shipments (Dept. of Commerce)*.....	78209	95990	8111	8097	8127	107048	12.2
Pulp, Paper and Paperboard*.....	36346	41539	3426	3483	3480	45886	11.0
Inventories (End of Period) - Total Industry*..	8729	9701	9660	9629	9658	9629	-1.2
Pulp, Paper and Paperboard*.....	3263	3662	3749	3720	3705	3720	3.7
			1985 Q1	1985 Q2	1985 Q3		
Sales (Corporations Only).....	65008	71891	17797	18262	17939	71997	-0.5
Earnings (Corporations Only).....	2327	3015	718	874	601	2924	-13.0
Depreciation (Corporations Only).....	2607	2798	765	761	804	3107	11.1
Net Worth (Corporations Only).....	27219	28160	29241	29797	29647	29647	2.9
PRICE INDEXES (Bureau of Labor Stats)1967=100			Sept	Oct	Nov		
Pulp, Paper & Products, ex. Building Grades....	271.4	292.9	289.2	288.8	287.7	292.6	0.1
Wood Pulp.....	347.1	395.0	337.0	337.7	333.1	348.5	-11.8
Waste Paper.....	N.A.	240.1	129.5	126.8	126.6	150.9	-38.0
Paper.....	282.3	303.2	303.3	301.4	301.0	303.8	0.3
Paperboard.....	250.8	280.6	266.6	265.9	264.2	276.4	-1.1
PAPER DEMAND (INDEXED: 1977=100)			Sept	Oct	Nov		
Total Paper Production *.....	118.6	124.1	122.0	121.6	122.0	122.6	-1.3
Paper New Supply *.....	123.3	127.7	130.1	130.0	130.1	128.8	0.7
Demand Indicators - (Weighted Average) *.....	123.0	136.7	142.8	143.1	143.3	141.6	3.8
Production of Nondurable Goods *....(21.2%).	113.7	122.5	126.8	127.0	125.3	125.3	2.4
Disposable Income *....(23.9%).	116.1	124.0	126.8	127.0	127.5	126.7	2.4
Total Printing and Publishing *....(54.9%).	129.6	147.8	155.9	156.3	156.5	154.4	4.7
Trend Factor			Not Available				
PAPERBOARD DEMAND (INDEXED: 1977=100)							
Total Paperboard Production *.....	111.3	117.4	115.1	116.2	115.7	113.9	-2.9
Production for Domestic Use	107.7	115.2	114.3	114.7	114.5	112.8	-2.0
Demand Indicators - (Weighted Average) *.....	107.9	118.3	120.8	120.2	120.8	120.0	1.5
Production of Consumer Goods *....(62.06%).	109.3	118.2	121.7	121.1	121.7	120.3	1.9
Production of Equipment *....(5.75%).	121.7	140.5	148.6	147.7	148.5	147.1	5.0
Production of Materials *....(32.19%).	102.8	114.6	114.1	113.6	114.2	114.5	-0.1
Trend Factor			Not Available				
NEWSPRINT MARKETS			Aug	Sept	Oct		
Consumption by Publishers - Tons (000).....	11671	12612	1041	1081.4	1151.9	12600	1.3
Newspaper Pub. and Printing Empl. Total(000)...	421.6	443.0	454.2	451.9	454.8	451.6	2.4
PRINTING AND PINE PAPER MARKETS							
MAGAZINE ADVERTISING PAGES (LNA, Inc.).....	141126	156756	10072	14517	14676	147691	-3.4
WHOLESALE SALES AND INVENTORIES (Million \$(j))							
Total Paper & Pap. Prdcts., ex Wallpaper..Sales	26532	31876	3049	2798	3152	34534	9.3
Inventories (End of Period).....	2341	2724	3038	2966	2948	2948	15.6
FIBRE BOX DATA (Fibre Box Association)			Sept	Oct	Nov		
Fibre Box Shipments (Million square feet).....	252539	267549	22026	25520	20726	266776	-1.4
Container'd Inventory at Mill & Plant(000Tons).	2437	2882	2561	2492	2480	2480	-6.4
RETAIL TRADE (Million \$)			Aug	Sept	Oct		
Total Retail Sales *.....	1171915	1291835	116977	119538	114546	1248398	6.8
Nondurable Goods Stores Sales *.....	793398	841417	72700	72946	72657	784387	2.8
GENERAL ECONOMIC DATA			Sept	Oct	Nov		
TOTAL INDUSTRIAL PRODUCTION (INDEX 1977 = 100)*..	109.2	121.8	125.0	124.6	125.1	124.3	2.2
PRODUCER PRICES(ALL COMMODITIES)(INDEX 1967=100)...	303.1	310.4	305.8	308.0	309.7	308.7	-0.5
CONSUMER PRICES (ALL ITEMS) (INDEX 1967 = 100)...	298.4	311.1	324.5	325.5	326.6	321.7	3.5
TOTAL CONSUMER CREDIT OUTSTANDING - (Billion \$)...	387.9	461.0	Aug	Sept	Oct		
GROSS NATIONAL PRODUCT - ANNUAL RATE (Billion\$)...			513.0	524.4	530.2	530.2	20.1
G.N.P. or Expenditure - Current \$.....	3401.6	3774.675	1985 Q1	1985 Q2	1985 Q3		
G.N.P. or Expenditure - 1982 \$.....	3275.1	3492.0	3197.5	3960.5	4016.2	3964.7	5.8
			3547.8	3557.4	3584.1	3563.1	2.3

lb/capita

E - Wood Pulp Production excludes def., explo. & scrngs.

Pap&Papbd Othr Totl Popul(mil)

g - Adjusted for holiday shutdowns

R - Revised

.a - 589 + 20 = 609 234.5

h - Adjusted to conform with API Division data

RS - Revised Series

.b - 631 + 21 = 652 236.7

j - Census unpublished data; standard dev. = 6-8%

y - Full year estim. by

.c - 622 + 21 = 643 238.6

N.A. - Not Available

U.S. Dept. of Com.

.E - Last month-estimated by API

P - Preliminary

* - Seasonally Adjusted

.e - estimated by API

Q - Quarter